

Bruhat Bangalore Mahanagara Palike
Executive Engineer Yelahanka Division

Item of Work: Improvements to Roads And Drains at 4th, 5th, 6th, 7th Cross Road at Judicial Layout in ward no.04

					Estimate Cost Rs.			150.00 Lakhs
Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
removing & Refixing Stone Slabs of drains and Pointing in C.M(1:3). (Page No 25., I.No.5.33 of KPWD R 2016-17)								
Basic rate	76.00							
1% AD-HOC	8.36							
Sub Total-1	84.36							
5% AW	5.06							
Sub Total-2	89.42							
Top slab								
2nd main	2	160.00	1.00		320.00			
1st main	2	133.50	1.00		267.00			
7th cross	2	102.00	1.00		204.00			
cross road -1	2	84.00	1.00		168.00			
cross road -2	2	253.00	1.00		506.00			
cross road -3	2	80.00	1.00		160.00			
cross road -4	2	83.00	1.00		166.00			
3rd cross	2	55.00	1.00		110.00			
cross road -5	2	58.00	1.00		116.00			
3rd cross, Sharada nagar	2	188.00	1.00		376.00			
	2	171.00	1.00		342.00			
	2	196.00	1.00		392.00			
	2	214.00	1.00		428.00			
	2	106.00	1.00		212.00			
	2	144.00	1.00		288.00			
	2	288.00	1.00		576.00			
Drain slab								
2nd main	2	160.00	1.65		528.00			
1st main	2	133.50	1.65		440.55			
7th cross	2	102.00	1.65		336.60			
cross road -1	2	84.00	1.65		277.20			
cross road -2	2	253.00	1.65		834.90			
cross road -3	2	80.00	1.65		264.00			
cross road -4	2	83.00	1.65		273.90			
3rd cross	2	55.00	1.65		181.50			
cross road -5	2	58.00	1.65		191.40			
	2	188.00	1.65		620.40			
	2	171.00	1.65		564.30			
	2	196.00	1.65		646.80			
	2	214.00	1.65		706.20			
	2	106.00	1.65		349.80			
	2	144.00	1.65		475.20			
	2	288.00	1.65		950.40			
Total Qty					12272.15			
Consider 30% of total Qty					3681.65	Sqm	89.42	329218.59

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
Providing precast slab of 100 mm thick including cost of all materials, labour, curing, transportation, loading, unloading, etc., complete as per the direction of engineer in charge- Data rate								
Basic rate	2100.00							
3% of Total qty of Item no -1 of precast slab					60.51			
					60.51	Sqm	2100.00	127071.00
Providing granite slabs of selected quality roughly dressed and fixed in cement mortar (1:6) including fixing curing etc., complete. 7.5cm thick (Page No 25., I.No.5.31.1 of KPWD S.R 2016-17).								
Basic rate	628.00							
11% AD-HOC	69.08							
Sub Total-1	697.08							
6% AW	41.82							
Sub Total-2	738.90							
Consider 10% of Total qty of Item no -1					1227.22			
					1227.22	Sqm	738.90	906795.05
KSRRB 300-1. Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 1.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications. MORTH / Chapter 3 (Page No142., I.No.19.1 of KPWD S.R 2016-17).								
Basic rate	82.00							
11% AD-HOC	9.02							
Sub Total-1	91.02							
6% AW	5.46							
Sub Total-2	96.48							
10km Id & It, transport	100.00							
Sub Total-3	196.48							
2nd main	2	160.00	0.50	0.50	80.00			
1st main	2	133.50	0.50	0.50	66.75			
7th cross	2	102.00	0.50	0.50	51.00			
cross road -1	2	84.00	0.50	0.50	42.00			
cross road -2	2	253.00	0.50	0.50	126.50			
cross road -3	2	80.00	0.50	0.50	40.00			
cross road -4	2	83.00	0.50	0.50	41.50			
3rd cross	2	55.00	0.50	0.50	27.50			
	2	58.00	0.50	0.50	29.00			
	2	188.00	0.50	0.50	94.00			
	2	171.00	0.50	0.50	85.50			
	2	196.00	0.50	0.50	98.00			
	2	214.00	0.50	0.50	107.00			
	2	106.00	0.50	0.50	53.00			
	2	144.00	0.50	0.50	72.00			
	2	288.00	0.50	0.50	144.00			
UGD Cut portion								
2nd main	1	160.00	1.00	0.35	56.00			
1st main	1	133.50	1.00	0.35	46.73			
7th cross	1	102.00	1.00	0.35	35.70			
cross road -1	1	84.00	1.00	0.35	29.40			

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
oss road -2	1	253.00	1.00	0.35	88.55			
oss road -3	1	80.00	1.00	0.35	28.00			
oss road -4	1	83.00	1.00	0.35	29.05			
rd cross	1	55.00	1.00	0.35	19.25			
	1	58.00	1.00	0.35	20.30			
	1	188.00	1.00	0.35	65.80			
	1	171.00	1.00	0.35	59.85			
	1	196.00	1.00	0.35	68.60			
	1	214.00	1.00	0.35	74.90			
	1	106.00	1.00	0.35	37.10			
	1	144.00	1.00	0.35	50.40			
	1	288.00	1.00	0.35	100.80			
Bad reaches	17	15.00	6.00	0.40	612.00			
culvert	2	8.00	1.50	1.20	28.80			
					2608.98	Cum	196.48	512614.54

KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892cum and fine aggregates @ 0.465cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No.KBS 4.1, 4.2 (P.12/I.4.2)/ PWD SR 2016-17

Basic rate	5046.00							
11% AD-HOC	555.06							
Sub Total-1	5601.06							
6% AW	336.06							
Sub Total-2	5937.12							
culvert	2	8.00	1.50	0.15	3.60			
					3.60	Cum	5937.12	21,373.64

KSRB 5.3-3 : Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13 (P.23/I.5.9)/ PWD SR 2016-17

Basic rate	5005.00							
11% AD-HOC	550.55							
Sub Total-1	5555.55							
6% AW	333.33							
Sub Total-2	5888.88							
culvert	4	8.00	0.45	0.70	10.08			
					10.08	Cum	5888.88	59,359.94

KSRB - 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates at 0.78cum and fine aggregates at 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms.thick, well compacted, in foundation, plinth and cills including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1,4.2. (P.No.12, I.No.4.6 of PW, P&IWTD SR 2016-17)

Basic rate	5441.00							
11% AD-HOC	598.51							
Sub Total-1	6039.51							
6% AW	362.37							
Sub Total-2	6401.88							

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
Vertical	4	8.00	0.45	0.10	1.44			
					1.44	Cum	6401.88	9,218.71

Providing precast slab of 250 mm thick including cost of all materials, labour, rigging, transportation, loading, unloading, etc., complete as per the direction of engineer in charge (data rate)

Basic rate	5111.00							
	2	8.00	1.50		24.00			
					24.00	Sqm	5111.00	122664.00

SRRB M400-6.1. Construction of granular sub-base by providing close graded material, crushed stone aggregates of granite/trap/basalt material, mixing in a mechanical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications.

1. Plant Mix Method. Close graded granular sub-base material as per 400-1 For Grading- II Material Page No 155., I.No.20.4.2 of KPWD S.R 2016-17).

Basic rate	1571.00							
11% AD-HOC	172.81							
Sub Total-1	1743.81							
6% AW	104.63							
Sub Total-2	1848.44							
UGD Cut portion								
2nd main	1	160.00	1.00	0.15	24.00			
1st main	1	133.50	1.00	0.15	20.03			
7th cross	1	102.00	1.00	0.15	15.30			
cross road -1	1	84.00	1.00	0.15	12.60			
cross road -2	1	253.00	1.00	0.15	37.95			
	1	80.00	1.00	0.15	12.00			
	1	83.00	1.00	0.15	12.45			
	1	55.00	1.00	0.15	8.25			
	1	58.00	1.00	0.15	8.70			
	1	188.00	1.00	0.15	28.20			
	1	171.00	1.00	0.15	25.65			
	1	196.00	1.00	0.15	29.40			
	1	214.00	1.00	0.15	32.10			
	1	106.00	1.00	0.15	15.90			
	1	144.00	1.00	0.15	21.60			
	1	288.00	1.00	0.15	43.20			
Bad reaches	17	15.00	6.00	0.15	229.50			
					576.83	Cum	1848.44	1066225.60

0 KSRRB M400- Wet Mix Macadam - KSRRB M400-17. Providing, laying, spreading and compacting graded stones aggregate to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 (P.No.158 I.No.20.18)

Basic rate	1668.00							
11% AD-HOC	183.48							
Sub Total-1	1851.48							
6% AW	111.09							
Sub Total-2	1962.57							
UGD Cut portion								

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
1st main	1	160.00	1.00	0.225	36.00			
2nd main	1	133.50	1.00	0.225	30.04			
3rd cross	1	102.00	1.00	0.225	22.95			
cross road -1	1	84.00	1.00	0.225	18.90			
cross road -2	1	253.00	1.00	0.225	56.93			
cross road -3	1	80.00	1.00	0.225	18.00			
	1	83.00	1.00	0.225	18.68			
	1	55.00	1.00	0.225	12.38			
	1	58.00	1.00	0.225	13.05			
	1	188.00	1.00	0.225	42.30			
	1	171.00	1.00	0.225	38.48			
	1	196.00	1.00	0.225	44.10			
	1	214.00	1.00	0.225	48.15			
	1	106.00	1.00	0.225	23.85			
	1	144.00	1.00	0.225	32.40			
	1	288.00	1.00	0.225	64.80			
Bad reaches	17	15.00	6.00	0.225	344.25			
					865.24	Cum	1962.57	1698088.12

Providing and applying primer coat with ss bitumen emulsion on prepared surface of granular base such as WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. MORTH Specification No.502 (P.No.160/lt No.21.6)

Basic rate	26.00							
11% AD-HOC	2.86							
Sub Total-1	28.86							
6% AW	1.73							
Sub Total-2	30.59							
UGD Cut portion								
2nd main	1	160.00	1.00		160.00			
1st main	1	133.50	1.00		133.50			
7th cross	1	102.00	1.00		102.00			
cross road -1	1	84.00	1.00		84.00			
cross road -2	1	253.00	1.00		253.00			
cross road -3	1	80.00	1.00		80.00			
cross road -4	1	83.00	1.00		83.00			
3rd cross	1	55.00	1.00		55.00			
	1	58.00	1.00		58.00			
	1	188.00	1.00		188.00			
	1	171.00	1.00		171.00			
	1	196.00	1.00		196.00			
	1	214.00	1.00		214.00			
	1	106.00	1.00		106.00			
	1	144.00	1.00		144.00			
	1	288.00	1.00		288.00			
Bad reaches	17	15.00	6.00		1530.00			
Profile correction								
2nd main	1	160.00	2.50		400.00			
	1	133.50	2.50		333.75			
	1	102.00	2.50		255.00			
	1	84.00	2.50		210.00			

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	1	253.00	2.50		632.50			
	1	80.00	2.50		200.00			
	1	83.00	2.50		207.50			
	1	55.00	2.50		137.50			
	1	58.00	2.50		145.00			
	1	188.00	2.50		470.00			
	1	171.00	2.50		427.50			
	1	196.00	2.50		490.00			
	1	214.00	2.50		535.00			
	1	106.00	2.50		265.00			
	1	144.00	2.50		360.00			
	1	288.00	2.50		720.00			
					9634.25	Sqm	30.59	294727.12
KSRRB M500- 15. Providing, laying dense graded bituminous macadam using 40/60 TPH capacity H.M.P with Mechanical paver Gr-II (50mm to 75mm), crushed aggregates of specified grading premixed with 4.5% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications MORTH Specification No.507 (P.No.162&163 lt.No.21.17.6)								
Basic rate	6717.00							
11% AD-HOC	738.87							
Sub Total-1	7455.87							
6% AW	447.35							
Sub Total-2	7903.22							
UGD Cut portion								
2nd main	1	160.00	1.00	0.05	8.00			
1st main	1	133.50	1.00	0.05	6.68			
7th cross	1	102.00	1.00	0.05	5.10			
	1	84.00	1.00	0.05	4.20			
	1	253.00	1.00	0.05	12.65			
	1	80.00	1.00	0.05	4.00			
	1	83.00	1.00	0.05	4.15			
	1	55.00	1.00	0.05	2.75			
	1	58.00	1.00	0.05	2.90			
	1	188.00	1.00	0.05	9.40			
	1	171.00	1.00	0.05	8.55			
	1	196.00	1.00	0.05	9.80			
	1	214.00	1.00	0.05	10.70			
	1	106.00	1.00	0.05	5.30			
	1	144.00	1.00	0.05	7.20			
	1	288.00	1.00	0.05	14.40			
Bad reaches	17	15.00	6.00	0.05	76.50			
Profile correction								
2nd main	1	160.00	2.50	0.05	20.00			
	1	133.50	2.25	0.05	15.02			
	1	102.00	2.25	0.05	11.48			
	1	84.00	2.25	0.05	9.45			
	1	253.00	2.25	0.05	28.46			
	1	80.00	2.25	0.05	9.00			

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	1	83.00	2.25	0.05	9.34			
	1	55.00	2.25	0.05	6.19			
	1	58.00	2.25	0.05	6.53			
	1	188.00	2.25	0.05	21.15			
	1	171.00	2.25	0.05	19.24			
	1	196.00	2.25	0.05	22.05			
	1	214.00	2.25	0.05	24.08			
	1	106.00	2.25	0.05	11.93			
	1	144.00	2.25	0.05	16.20			
	1	288.00	2.25	0.05	32.40			
					454.77	Cum	7903.22	3594138.48

KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH specification clause 501. (P.No.161 & I.No.21.2)

Basic rate	3.00							
11% AD-HOC	0.33							
Sub Total-1	3.33							
6% AW	0.20							
Sub Total-2	3.53							
2nd main	1	160.00	5.50		880.00			
	1	133.50	5.60		747.60			
	1	102.00	5.30		540.60			
	1	84.00	5.10		428.40			
	1	253.00	6.80		1720.40			
	1	80.00	4.60		368.00			
	1	83.00	5.10		423.30			
	1	55.00	4.30		236.50			
	1	58.00	5.30		307.40			
	1	188.00	5.30		996.40			
	1	171.00	6.50		1111.50			
	1	196.00	4.60		901.60			
	1	214.00	6.50		1391.00			
	1	106.00	5.60		593.60			
	1	144.00	4.50		648.00			
	1	288.00	5.30		1526.40			
					12820.70	Sqm	3.53	45,254.51

KSRRB 500-7: Providing and applying tack coat with bitumen emulsion using 80/100 grade bitumen (VG20) on the prepared black topped surface at 2.5kg per 10 sqm, heating bitumen in boiler fitted with spray set (Excluding cleaning of road surface) including cost of all materials, labour, HOM of Machineries complete as per Specifications. (P.No.160 & I.No.21.7)

Basic rate	11.00							
11% AD-HOC	1.21							
Sub Total-1	12.21							
6% AW	0.73							
Sub Total-2	12.94							
2nd main	1	160.00	5.50		880.00			
	1	133.50	5.60		747.60			
	1	102.00	5.30		540.60			
	1	84.00	5.10		428.40			
	1	253.00	6.80		1720.40			

Description of Items	No	Length	Width	Depth	Quantity	Unit	Rate	Amount
	1	80.00	4.60		368.00			
	1	83.00	5.10		423.30			
	1	55.00	4.30		236.50			
	1	58.00	5.30		307.40			
	1	188.00	5.30		996.40			
	1	171.00	6.50		1111.50			
	1	196.00	4.60		901.60			
	1	214.00	6.50		1391.00			
	1	106.00	5.60		593.60			
	1	144.00	4.50		648.00			
	1	288.00	5.30		1526.40			
					12820.70	Sqm	12.94	165933.19

KSRRB M500- 15. Providing, laying bituminousConcrete using 40/60 THP capacity H.M.P with Mechanical paver Gr-II (30mm to 45mm), crushed aggregates of specified grading premixed with 5.4% VG 30 grade bituminous binder and , transporting the hot mix to work site , laying to the required level and grade,rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH Specification clause No.500.9 complete in all respects complete as per specifications MORTH Specification No.509 (P.No.164 Item No.21.22.6)

Basic rate	7659.00							
11% AD-HOC	842.49							
Sub Total-1	8501.49							
6% AW	510.09							
Sub Total-2	9011.58							
2nd main	1	160.00	5.50	0.04	35.20			
	1	133.50	5.60	0.04	29.90			
	1	102.00	5.30	0.04	21.62			
	1	84.00	5.10	0.04	17.14			
	1	253.00	6.80	0.04	68.82			
	1	80.00	4.60	0.04	14.72			
	1	83.00	5.10	0.04	16.93			
	1	55.00	4.30	0.04	9.46			
	1	58.00	5.30	0.04	12.30			
	1	188.00	5.30	0.04	39.86			
	1	171.00	6.50	0.04	44.46			
	1	196.00	4.60	0.04	36.06			
	1	214.00	6.50	0.04	55.64			
	1	106.00	5.60	0.04	23.74			
	1	144.00	4.50	0.04	25.92			
	1	288.00	5.30	0.04	61.06			
					512.83	Cum	9011.58	4621390.24

Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation etc.,complete (P.No-25, I No-5.30)

Basic rate	313.00							
11% AD-HOC	34.43							
Sub Total-1	347.43							
6% AW	20.85							
Sub Total-2	368.28							
missing & damaged	2	220.00			440.00			